

LISTING OF CLAIMS

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

1-20 (Canceled).

21. (Currently Amended) A method of modifying a commercially available condensation polymer, without degradation, comprising:

synthesizing a modifying polymer from at least one monomer, none of the components used to synthesize the modifying polymer being derived from the commercially available condensation polymer; and

transesterifying the modifying polymer with the commercially available condensation polymer at a quantity predetermined by the end use application to produce a higher molecular weight final polymer having a molecular weight greater than the modifying polymer or the commercially available condensation polymer.

22. The process of claim 21, wherein the commercially available condensation polymer is polyethylene terephthalate.

23. The process of claim 21 wherein the commercially available condensation polymer is polyethylene naphthalate.

24. The process of claim 21 wherein the higher molecular weight final polymer is a polyol.

25. A hot melt adhesive comprising the higher molecular weight final polymer produced by the process of claim 21.

26. A film forming coating comprising the higher molecular weight final polymer produced by the process of claim 21.

27. A powder coating resin or component of a fusible coating system comprising the higher molecular weight final polymer produced by the process of claim 21.

28. A flexible film comprising the higher molecular weight final polymer produced by the process of claim 21.

29. An unsaturated resin for casting comprising the higher molecular weight final polymer produced by the process of claim 21.

30. The process of claim 23 further comprising reacting the polyol with an isocyanate to produce a polyurethane.

31. A method of modifying a commercially available condensation polymer, without degradation, comprising:

synthesizing a modifying polymer from at least one monomer, none of the components used to synthesize the modifying polymer being derived from the commercially available condensation polymer, the synthesis being carried out occurring at a reaction time of about 1 hour to about 5 hours and at a temperature of about 150 °C to about 270 °C; and

transesterifying the modifying polymer with the commercially available condensation polymer at a quantity predetermined by the end use application, the second transesterifying step being carried out at a reaction time of less than about 3 hours and at a temperature of about 200 °C to about 290 °C to produce a higher molecular weight final polymer having a molecular weight greater than about 192 g/mol.

32. The process of claim 31, wherein the commercially available condensation polymer is polyethylene terephthalate.

33. The process of claim 31 wherein the commercially available condensation polymer is polyethylene naphthalate.

34. The process of claim 31 wherein the higher molecular weight final polymer is a polyol.
35. A hot melt adhesive comprising the higher molecular weight final polymer produced by the process of claim 31.
36. A film forming coating comprising the higher molecular weight final polymer produced by the process of claim 31.
37. A powder coating resin or component of a fusible coating system comprising the higher molecular weight final polymer produced by the process of claim 31.
38. A flexible film comprising the higher molecular weight final polymer produced by the process of claim 31.
39. An unsaturated resin for casting comprising the higher molecular weight final polymer produced by the process of claim 31.
40. The process of claim 33 further comprising reacting the polyol with an isocyanate to produce a polyurethane.